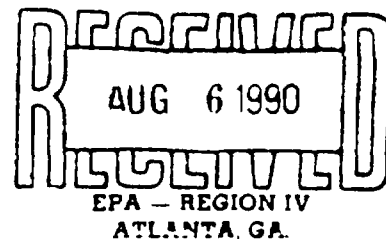




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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365



MEMORANDUM

Date: **AUG 03 1990**

SUBJECT: REVIEW OF THE "PHASE II RI/FS WORK PLAN FOR THE
MEDLEY FARM SITE, GAFFNEY, SOUTH CAROLINA, JULY 1990,

FROM: Tony Able, Hydrologist, P.G.
Ground-Water Technology Unit

Tony Able

TO: Jon K. Bornholm
Remedial Project Manager
North Superfund Remedial Branch

THRU: Rutherford B. Hayes, Chief
Ground-Water Technology Unit

R.B. Hayes

Per your request review of the subject document has been completed. The basic strategy of the work plan is adequate, however, I disagree with several of the specific technical decisions. The comments that follow are referenced to page numbers in the work plan.

Page 12 (Table 2.2) - It is noted that inorganic ground-water samples will be filtered before analysis. EPA does not recognize filtered ground-water samples for the purpose of determining compliance with ground-water protection standards. At some NPL sites the potentially responsible parties (PRPs) elect to collect and analyze both filtered and unfiltered samples for the purpose of comparison.

Page 20 (Table 2.6) - It is a concern that the levels of arsenic, barium, and chromium are above the Maximum Concentration Limits (MCLs) in ground-water samples from the background monitoring well SW1. It is understood that no inorganic (metals) contamination has been detected in the source areas (disposal areas), and further studies are proposed upgradient of the site, but no mention is made relative to sampling of the Sprouse drinking water well which is also upgradient. Although the Sprouse well is considered upgradient of the contaminant plume, the detections in the background monitoring wells warrant sampling of the Sprouse water supply. The Sprouse well should be sampled and analyzed for volatile organics compounds (VOCs) and metals.

Page 25 - The statement is made that PVC casing will be left standing in the borehole at each hydropunch location, and after water level measurements are made the hole will be abandoned with grout. Consideration should be given to converting these borings to permanent piezometers. Very little additional expense and effort will be necessary to convert the borings to piezometers, and considering the complex hydraulics of piedmont aquifers the site should have as many aquifer water level monitoring locations as possible.

Page 27 - It is stated that no monitoring wells are proposed northeast of monitoring well SW3 due to low contaminant concentrations detected in well SW3, and extremely difficult access for locating a new well.

It is important to install monitoring wells north of SW3 because ground-water samples from SW3 had concentrations of several contaminants that exceeded MCLs. The following table lists the concentration of contaminants that exceeded MCLs in the Phase I sampling. The data was taken from Table 5.6 of draft Medley Farm Site Remedial Investigation Report, volume I.

<u>COMPOUND</u>	<u>CONCENTRATION</u> (ug\l)	<u>MCL</u> (ug\l)
1,1-dichloroethene	8.0	7.0
1,2-dichloroethene	9.0	5.0
trichloroethene	140.0	5.0
tetrachloroethene	190.0	5.0 pMCL

(Note: The data reported in this table is from the Phase IA sampling. In the Phase IB sampling trichloroethene and tetrachloroethene again exceeded MCLs)

Monitoring well SW3 is the northeastern-most well on this side of the site, therefore, the northeastern extent of the plume has not been delineated.

Page 29 - Rationale is provided that the proposed well group 104 (southwest of existing monitoring well SW4) will help evaluate the southwestward movement of ground water and ground-water contamination. However, on Figure 4.1 the scenario states that if no contamination is detected in hydropunch location HP104 then no permanent monitoring wells will be installed in this area. Permanent monitoring wells should be installed at locations west and southwest of SW4 for the same reasons described above for SW3; concentrations of 1,1-dichloroethene, 1,1-dichlorethane, 1,2-dichloroethene, and 1,1,1-trichloroethane (Table 5.6 from the draft Medley Farm Site Remedial Investigation Report, Volume I) exceed MCLs in ground water from SW4, and it is the well on the northwestern-most side of the plume. As a result the northwestern extent of the plume has not been delineated, and both saprolite and bedrock monitoring wells are necessary for this purpose.

Page 29 - (Figure 4.1) The proposed monitoring well pair SW107/BW107 should be moved approximately 200 feet northwestward, up the ravine, to be located near the intersection with the northeast\southwest trending ravines. This rationale is consistent with the rationale for the location of well pair 106; place the wells at the intersections of ravines because the ravines possibly represent fracture systems in the underlying bedrock which act as preferred flow routes for ground-water and contaminant migration.

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After completion of the Phase II site investigation ground-water clean up levels will be established for the contaminants detected in the aquifer beneath the site. The aquifer is a current source of drinking water, therefore, it is classified as a Class IIA aquifer under the EPA Ground-Water Protection strategy. As a Class IIA aquifer the remediation standards will be MCLs, Proposed MCLs (pMCLs), MCL Goals (MCLGs), and/or criteria based upon protection of human health via ingestion of drinking water as approved by an EPA toxicologist.

If you have any questions contact me at extension 3866.